



Health and environmental observation

Marjan van Meerloo

DG Research and Innovation, European Commission

Online Workshop: Space for Intelligent Health - 3 Nov 2020

EARLY WARNING
FOR EPIDEMICS

EIC HORIZON
prize

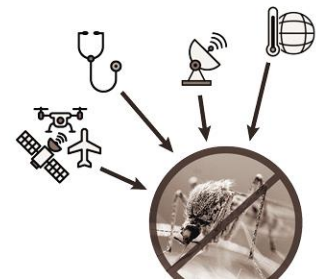


EIC Horizon Prize on Early Warning for Epidemics

(Horizon 2020)

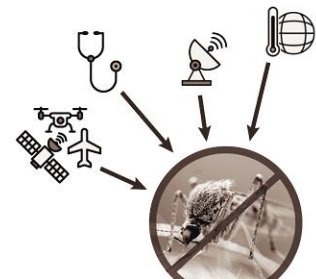
EIC Horizon Prize (1)

- 6 prizes launched under the EIC-pilot Work Programme in 2017-2018
- For Earth Observation and health -> EIC Horizon Prize for 'Early Warning for Epidemics'
- Challenge: scalable, reliable and cost-effective early-warning system prototype to forecast and monitor vector-borne diseases
- Contributes to SDG 3 -> "Ensure healthy lives and promote well-being for all at all ages"



EIC Horizon Prize (2)

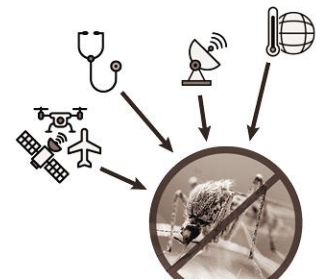
- Inducement prize of € 5 M
- Effective management of big data in the EO domain shall be an essential element in improving 'early warning' capabilities
- Expected results include a demonstration of the prototype at local level: 'proven prototype' (6 month period)
- Launch: 26 April 2018
- Deadline: ~~1 September 2020~~ 16 February 2021
- Website:
https://ec.europa.eu/research/eic/index.cfm?pg=prizes_epidemics



EIC Horizon Prize (3)

- Criteria

- *Criterion 1: Operational capability and integration of existing data (Max. 40pts)*
- *Criterion 2: Demonstrated implementation within an affected community (Max. 40 pts)*
- *Criterion 3: Scalability and sustainability of the Early Warning Concept (Max. 20 pts)*
- *Criterion 4: Focus on demonstration of European technology (Max. 20 points)*



Horizon Europe

THE NEXT EU RESEARCH & INNOVATION
INVESTMENT PROGRAMME (2021 – 2027)

#HorizonEU



European Parliament and Council reached a common understanding on Horizon Europe on 19 March 2019

- Budget, synergies and third country association still pending, depending on the overall MFF negotiations
- Commission has started preparations for the implementation of Horizon Europe



Structure Horizon Europe



Pillar 1

Excellent Science

European Research Council

Marie Skłodowska-Curie
Actions

Research Infrastructures



Pillar 2

Global Challenges and
European Industrial
Competitiveness

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre



Pillar 3

Innovative Europe

European Innovation Council

European innovation
ecosystems

European Institute of
Innovation
and Technology

Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



European
Commission

Horizon Europe proposed Missions

Five missions proposed on the 22 September during the R&I Days

1. Conquering Cancer: Mission Possible
2. A Climate Resilient Europe - Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and just Europe by 2030
3. Mission Starfish 2030: Restore our Ocean and Waters
4. 100 Climate-Neutral Cities by 2030 - by and for the citizens
5. Caring for Soil is Caring for Life



A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

Clusters in 'Global Challenges and Industrial Competitiveness'

Clusters	Areas of intervention	
Health	• Health throughout the life course • Non-communicable and rare diseases • Tools, technologies and digital solutions for health and care, including personalised medicine	• Environmental and social health determinants • Infectious diseases, including poverty-related and neglected disease • Health care systems
Culture, creativity and inclusive society	• Democracy and Governance • Social and economic transformations	• Culture, cultural heritage and creativity
Civil security for society	• Disaster-resilient societies • Protection and Security	• Cybersecurity
Digital, Industry and space	• Manufacturing technologies • Advanced materials • Next generation internet • Circular industries • Space, including Earth Observation • Emerging enabling technologies	• Key digital technologies, including quantum technologies • Artificial Intelligence and robotics • Advanced computing and Big Data • Low-carbon and clean industry • Emerging enabling technologies
Climate, Energy and Mobility	• Climate science and solutions • Energy systems and grids • Communities and cities • Industrial competitiveness in transport • Smart mobility	• Energy supply • Buildings and industrial facilities in energy transition • Clean, safe and accessible transport and mobility • Energy storage
Food, bioeconomy, natural resources, agriculture and environment	• Environmental observation • Agriculture, forestry and rural areas • Circular systems • Food systems	• Biodiversity and natural resources • Seas, oceans and inland waters • Bio-based innovation systems in the EU Bioeconomy

Environmental observation in Horizon Europe (1)

- Environmental observation is cross cutting over many destinations -> grouped under destination 7 when env obs are crucial for achieving the impacts listed
- Environmental observation (data/information) is of great value in assessing the state of the planet and delivering crucial information for the Green Deal
- Ensuring (better) accessible, interoperable or deployable information
- Integration of this information from different sources (space-based, airborne including drones, in-situ and citizens observations) with other relevant data to deliver input for shaping CI 6 policies
- A strong link with Copernicus, ESA's Earth observation programme, GEO/EuroGEO and GEOSS expected

Environmental observation in Horizon Europe (2)

- Ensure better access to and exploitation of environmental knowledge including decreasing in-situ gaps and ensuring availability
- Emphasising downstream part of the value chain
- Improve usage of data acquired by citizens and empower them
- Targeting some specific domains – Including ONE HEALTH
- Complementary to other clusters



Thank you!

#HorizonEU

<http://ec.europa.eu/horizon-europe>

For questions, please contact:
Marjan.van-Meerloo@ec.europa.eu